

REMARKS/ARGUMENTS

Claims 1, 3, 12, 17 and 18 have been canceled, and claims 19-24 have been added.

New independent claim 19 replaces claim 1 and includes the subject matter of original claims 1 and 3 along with several additional features (rectangular walls 38, common opening with two opening directions, and sealing face being formed by the inner faces of the walls 38), all of which are supported in the specification.

Claims 2 and 4-11 have been amended to depend from claim 19, and new claim 20 depends from claim 19.

New claim 20 specifies that the internal volume of the housing approximately constitutes a cuboid. This is supported by the specification in conjunction with Figures 1 and 2.

New independent claim 21 replaces claim 12 and includes the subject matter of original claims 12 and 17 along with the additional features that the two outer walls which are arranged at an angle to one another can close off the openings, which are connected to one another and have different opening directions, in the electronics interface and are additionally connected to one another by means of an L-shaped frame element in such a way that both the printed circuit board (32) and also connections (100) of the electronic connector (84) are freely accessible in order to be mounted. These limitations are supported by the specification.

Claims 13-16 have been amended to depend from claim 21, and new claims 22 and 23 depend from claim 21.

The feature of new claim 22 that the printed circuit board can be mounted laterally, perpendicular in relation to the insertion direction, on the electronics connector in a simple manner without obstruction and with the connections make contact with the printed circuit board by means of press-fit technology is supported by the specification.

The new feature of new claim 23 that current contacts are arranged directly on the L-shaped frame element is supported by the specification in conjunction with Figure 5.

New system claim 24 replaces original claim 18 and is a combination of the gear drive unit as claimed in claim 19 and a plug-in module as claimed in claim 21.

Reconsideration of the prior art rejections is respectfully requested.

Matsuyama US 2004/0061391 is not a proper reference because its US filing date (September 16, 2003) is after the German priority date of this application, that date being April 17, 2003. To “perfect” the German filing date, submitted herewith is a certified English translation of the German priority document. Accordingly, removal of Matsuyama US 2004/0061391 as a reference is respectfully requested.

The primary reference is Lekeux (US 6,191,512), in which an open plug-in module can be inserted into an interface. However, the spaced-apart walls of the interface of the drive unit are not rectangular but triangular. This interface therefore forms only a single opening with a single opening direction (perpendicular to the opening face). This does not in any way suggest to a person skilled in the art that he should form an interface which has two adjacent openings into which something can be inserted or out of which something can project, in principle, in two directions. Furthermore, Lekeux points away from forming a sealing face on the inner face of the walls of the interface in order to form a radial seal with the plug-in module. **In Lekeux, the sealing face is in the form of a flange** in which the seal of the electronics module in the direction of insertion is pressed against the interface **axially to the direction of insertion** by means of the guides. The geometric design of such a diagonal sealing plane of Lekeux is **not compatible with the design of a sealing face, which sealing face seals radially to the direction of insertion, on the inner wall (that is to say so as to seal perpendicular to the insertion direction!)** of the electronics interface. Therefore, the subject matter of new claim 19 is not suggested by Lekeux.

Matsuyama (US 2002/0079758 A1) does not describe two opening directions which are arranged perpendicular to one another and does not describe a radial seal (in relation to the insertion direction). The disadvantage of the axial (to the insertion direction) flange seals is that the components arranged on the printed circuit board cannot be positioned so accurately in relation to the armature shaft since the elastic seal causes positioning inaccuracies in the insertion direction (perpendicular to the armature shaft). On account of the design according to the invention of a radial seal (perpendicular to the insertion direction), the components (Hall sensors 30; figs 3, 5) can be positioned very exactly with respect to the circumference of a ring magnet (signal transmitter) on the armature shaft.

The design of an interface with rectangular walls which are spaced apart from one another and **have two openings with different opening directions** (for combination with an open plug-in module) is not obvious from a combination of Lekeux and Matsuyama. The subject matter of new independent claim 19 is therefore not suggested by the combination of Lekeux and Matsuyama.

With respect to new claim 21, the plug-in module of Lekeux does not have a radial seal in relation to the insertion direction and this is not suggested in the case of this flange seal either. Furthermore, the plug-in module of Lekeux does not have outer walls which are arranged at an angle to one another and are suitable for closing off two openings, which are connected to one another and have different opening directions, in a water-tight manner. In the Office action, reference symbol 5b of Lekeux is interpreted as being the frame element, but in the description this designates the entire housing of the insert part. As stated above, the plug-in module of Lekeux is suitable only for closing an opening of an interface with one opening direction. If it were assumed in Lekeux that the two side faces of the plug-in module are outer walls which are arranged at an angle to one another and against the ends of which the printed circuit board 6 rests, these two outer walls are additionally connected to one another by two further opposite, triangular outer walls. This has the disadvantage that the printed circuit board is not freely accessible for mounting purposes perpendicular to the insertion direction since it is pushed too far into the housing (triangular side walls) which comprises the printed circuit board. Therefore,

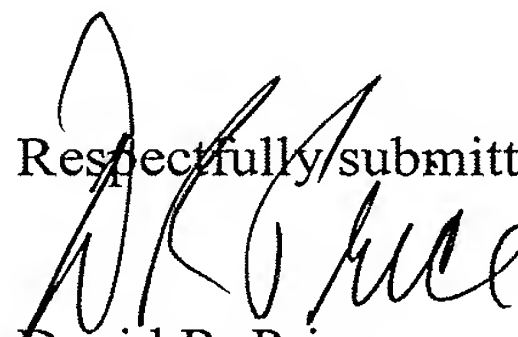
the connections of the electronics connector are likewise not freely accessible in the region of the printed circuit board for mounting of the connections on the printed circuit board.

However, according to the invention specified in independent claim 21, two outer walls which are arranged at an angle to one another by means of an L-shaped frame are connected to one another in such a way that no further side walls of the plug-in module inhibit mounting of the printed circuit board or mounting of the connections of the electronics connector on the printed circuit board. The side walls of the plug-in module can be dispensed with by virtue of stabilization by means of the L-shaped frame element, as a result of which the printed circuit board, as described in claim 17, can be pressed onto the ends of the connector pin 100 transverse to the insertion direction by means of press-fit technology. This constitutes a considerable mounting advantage since the design of the plug-in module as per Lekeux makes it considerably more difficult to make contact with the printed circuit board. Neither Lekeux nor the other references suggest to a person skilled in the art that he could connect the outer walls, which are arranged at an angle to one another, to one another by means of an L-shaped frame element in such a way that the printed circuit board is freely accessible for mounting the connections. The subject matter of new claim 21 is therefore not suggested by the cited references.

New independent claim 24 is likewise not suggested by the cited references because it includes the subject matter of claims 19 and 21.

In view of the foregoing, entry of the above amendment and allowance of claims 1, 2, 4-11, 13-16 and 19-24 are respectfully requested.

Respectfully submitted,



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